

# An Empirical Study On Perception And Attitude Of Consumers Towards Unified Payment Interface (UPI)

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**Abstract:** With the introduction of the Unified Payment Interface, India has made significant progress toward becoming a cashless nation (UPI). With the new payment system, your smartphone can function as a virtual debit card. Therefore, this study article makes an effort to investigate the factors that influence consumers' attitudes and perceptions of the Unified Payment Interface as well as the effects of those attitudes and perceptions. For this purpose, research has applied One-Way ANOVA test, which states that there is significant association between location and awareness level towards unified payment interface. The mean value obtained in case of Urban population is more than rural and semi-rural population.

**Keywords:** Unified Payment Interface, Perception of Consumers, attitude, advantages of UPI, disadvantages, etc.

## 1.1 Introduction:

Since the days of ledger cards and other manual filing systems, banking has advanced significantly. Today's banks use electronic systems to manage the numerous, time-consuming activities of information retrieval, storage, and processing that they face every day. Regardless of whether they are automated or not, banks are constantly engaged in all types of information management due to their very nature. Of course, the computer is a well-known tool for gaining a competitive advantage and for resource allocation. The face of banking has evolved as a result of competition, ongoing technological advancements, and changing lifestyles. Banks are looking for new strategies to deliver and set themselves apart from the competition in today's market. Customers no longer want to wait in line at banks or on hold for the most basic services, whether they are corporate or retail. They demand and anticipate being able to conduct their financial transactions whenever and wherever they please. With the number of computers

growing annually, banks are increasingly finding that providing financial services electronically is the best way to satisfy their customers' needs.

### 1.1.1 E-Banking:

E-banking is the term used to describe how well banks use IT. It involves creating opportunities on both a local and global scale by utilising the digital age's infrastructure. It makes it possible to significantly reduce transaction costs and to provide brand-new banking opportunities that overcome time and geographic restrictions. In e-banking, there are immediate, worldwide, and local banking options. The most recent of numerous generations of systems is the present web-based banking option. (Gupta, S., & Kumar, D. 2020): Customers of retail banks were first given electronic access by well-known machines called ATMs. Banks are now able to service consumers outside of the banking hall thanks to the development of ATMs. Then, at that point, came telephone banking, in which clients call their bank's PC framework utilizing a standard

telephone and do monetary exchanges utilizing the keypad. PC banking supplanted telephone banking and permitted clients to speak with their bank utilizing a PC associated with the telephone network through a dialup modem. The assets of the whole banking sector are made up of more than 78% PSBs, which form the backbone of the Indian banking system. Unfortunately, they have a problem with too many NPAs, a lot of staff, and no modem technology. On the other hand, India's PSIBs and PSFBs are making significant strides. They are industry pioneers in ATMs, mobile banking, phone banking, and online banking. Given this context, it is fascinating to examine the e-banking environment in India. (Gupta, S., Mittal, R., & Mittal, A. 2019).

### **1.1.2 Unified Payment Interface (UPI):**

The National Payments Corporation of India fostered the Unified Payments Interface (UPI), a moment ongoing installment framework that works with interbank exchanges. It is founded on NPCI's IMPS (Immediate Payment Service) protocol. Since the Indian smartphone revolution, there has been a dramatic increase in the number of different digital payment methods, even though only roughly 200 million individuals had access to the internet in 2018. Both the payer and the payee utilize advanced techniques to send and get cash in computerized installments (Prayudha, A. R., Sumarto, S., & Abdullah, A. G. 2020).

With the introduction of the Unified Payment Interface, India has made significant progress toward becoming a cashless nation (UPI). With the new payment system, your smartphone can function as a virtual debit card. The instantaneous sending and receiving of money has also been made feasible. The use of digital wallets has completely disappeared thanks to the QR code idea. The Indian payment system has altered as a result of technological advancement. After November 8, 2016, the post-demonetization period played a huge impact in the development of computerized installments in India. Moreover,

as a component of government changes, Prime Minister Mr. Narendra Modi has intensely advanced credit only exchanges. Estimations in view of data from the Reserve Bank of India and the National Payments Corporation of India show that for the primary portion of current financial year, there were around 11.8 billion computerized exchanges. The market for digital payments has been significantly impacted by the smart phone, which has become an important part of people's online personal, professional, and financial lives. The ecosystem of smart phones made it relatively simple to integrate different applications and technologies into modern life. The reception of one touch installment is affected by the straightforward openness of web associations, one touch access, and safe monetary exchanges. Subsequently, the Government of India made one key item, the "UPI," to expand this worth of cell phones and innovation and to make a stage for credit only and straightforward monetary exchanges (Unified Payment Interface). In view of the IMPS innovation, NPCI fostered the direct installment instrument known as UPI. UPI capabilities as an email ID for cash and can be utilized on a PDA. It empowers the utilization of a virtual installment address (VPA; a VPA is an ID made by a client by interfacing their records to a bank's versatile application) as an installment identifier for sending and getting cash and works with a solitary snap.

UPI is a brought together stage that brings together unique financial highlights and administrations under one rooftop. To send and get cash, all you really want is a UPI ID and PIN. A cell phone or virtual installment address can be utilized to make constant bank-to-bank installments (UPI ID).

The Reserve Bank of India, the Indian Banks Association, and the National Payments Corporation of India (NPCI) have all taken the UPI initiative (IBA). The company in charge of managing the RuPay payment infrastructure, which is comparable to Visa and MasterCard, is

NPCI. It enables money transfers between various banks. Another NPCI project is Immediate Payments Service (IMPS). The more sophisticated form of IMPS is UPI.

## 2. Literature Review:

According to Indoria, D., & Devi, K. (2021), even though the internet was invented in the much earlier, it became popular among general population in the year 1994, and four years after that the security protocols were developed which allowed a persistent connection and rapid access to the internet. However, in the year 2000 the word e-commerce gained the popularity. People have started defining the term e-commerce and they considered it as a process of buying the goods and services over the internet using the developed secure connection and most important through electronic payment systems.

According to a study by Philip, B. (2019), the National Payment Corporation of India's (NPCI) introduction of the astonishing, modernised, cost-effective breakthrough known as the Unified Payment Interface (UPI) had a significant impact on the Indian economy, which has been gradually rising (NCPI). Over the past few years, India's payment systems have undergone a rapid shift. Mobile and card payment system adoption are two essential elements of this campaign. The purpose of this study is to determine customer preferences for unified payment interfaces and to determine how customer satisfaction is affected by these interfaces. Mean, F-Test, ANOVA, and Regression analysis were utilised by the researcher to analyse and interpret the data. This survey concluded that customers have a favourable impression of the unified payment interface.

The COVID-19 and related lockdown in the nation, according to Kuriakose, A., Sajoy, P. B., and George, E. (2022), presented an opportunity for digital payment providers, with Unified

Payment Interface (UPI) leading the pack. During the 2020–21 fiscal year, UPI logged more than 22 billion transactions, totaling more than trillion, much outpacing other digital payment methods. Although UPI is the most popular digital payment method in India, there is currently no reliable research model for assessing UPI user uptake. Therefore, this article presents an extensive assessment of recent works of literature on consumers' intentions to use digital and mobile payments and develops a novel model specifically for detecting the drivers of "Unified Payment Interface (UPI)" adoption. The study developed the model by adding "Relative Advantage," "Add-on Services," and "Promotional Benefits" as new constructs in addition to the UTAUT2 structures already present. The proposed model can undergo additional empirical testing to produce significant findings and recommendations that can aid payment service providers in making the right choices for the growth of their user bases.

### 3.1 Research Objectives:

The objectives of this research are:

1. To identify the factors affecting perception and attitude of consumers towards Unified Payment Interface in India
2. To analyse the perception of consumers towards Unified Payment Interface (UPI)

### 3.2 Research Hypothesis:

H1: Unified payment interface services are only available to cities and metros and it's difficult to penetrate it in rural areas.

### 3.3 Data Collection and Sampling:

For the purpose of this research, primary data has been collected from 100 consumers residing in Urban, Semi-urban and rural areas of India. Convenient sampling technique has been used to identify the respondents. The respondents were given a semi-structured questionnaire to complete, and secondary data were gathered

online, in journals, and other places. A descriptive research design has been employed in the current study to identify the variables influencing how consumers perceive unified payment interfaces.

#### 4.1 Factors affecting perception of consumers towards Unified Payment Interface:

The perception of consumers towards UPI is affected due to many factors. Some of them are mentioned below:

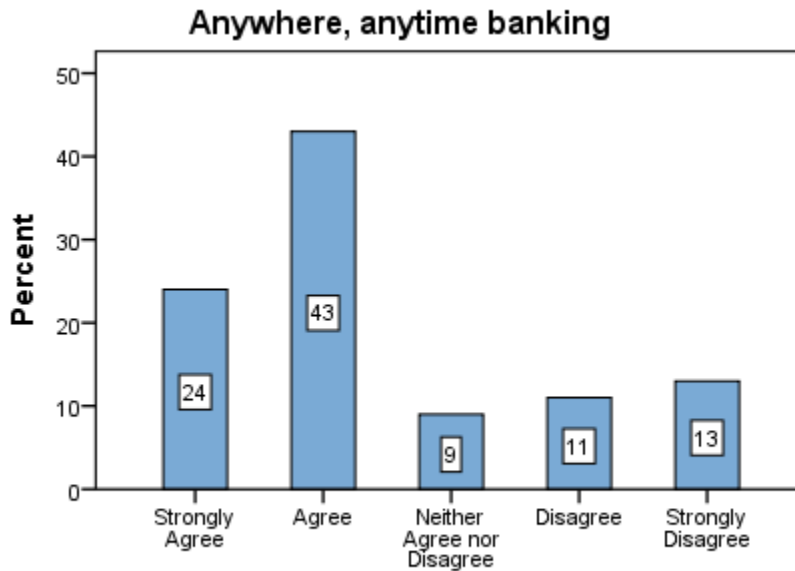


Fig. 1 (Source: Primary Data)

The most important factor that affected the perception of consumers towards unified payment interface is that it possess the advantage of Anywhere, anytime Banking. Majority i.e. 43% of the consumers agree to this, which is

supported by 24% consumers who strongly agree to this. 9% consumers neither agree nor disagree to this. However, 11% consumers disagree to this and remaining 13% strongly disagree to this.

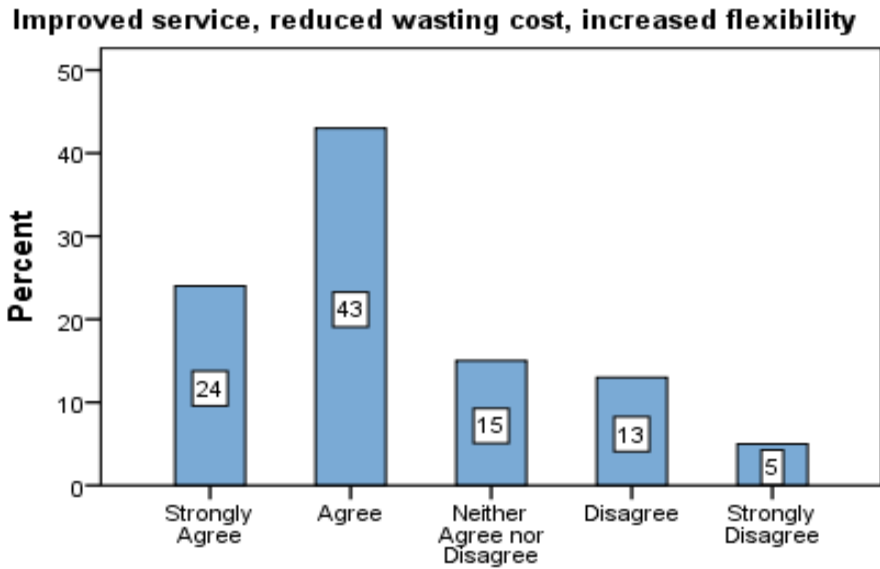


Fig. 2 (Source: Primary Data)

Unified Payment Interface helps in improving the banking services, reducing wasting cost, and increased flexibility. Majority i.e. 43% of the consumers agree to this, which is supported by

24% consumers who strongly agree to this. 15% consumers neither agree nor disagree to this. However, 13% consumers disagree to this and remaining 5% strongly disagree to this.

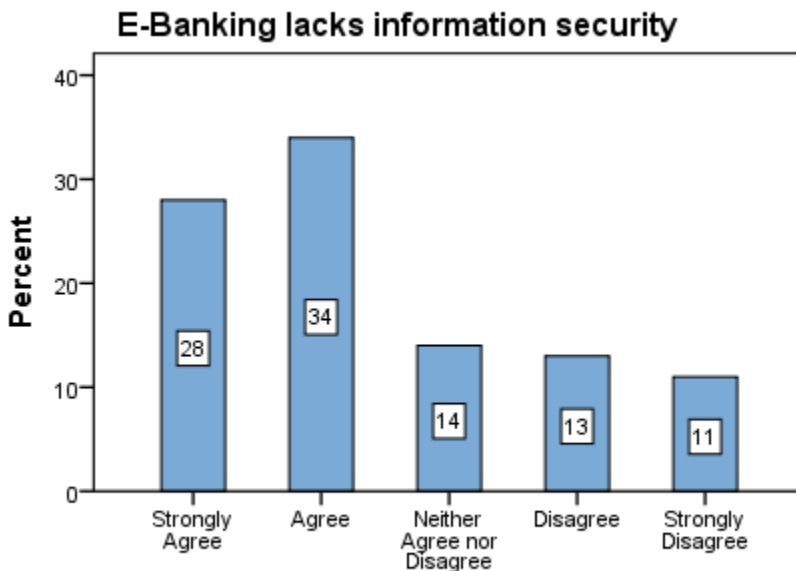


Fig. 3 (Source: Primary Data)

Apart from various advantages attached to Unified Payment Interface, it has certain disadvantages also which affect the perception of consumers towards them. Majority i.e., 34% of the consumers agree that e-banking or unified payment interface lacks information security,

which is supported by 28% of consumers who strongly agree to this. 14% of the consumers neither agree nor disagree to this. However, 13% consumers disagree to this and remaining 11% strongly disagree to this.

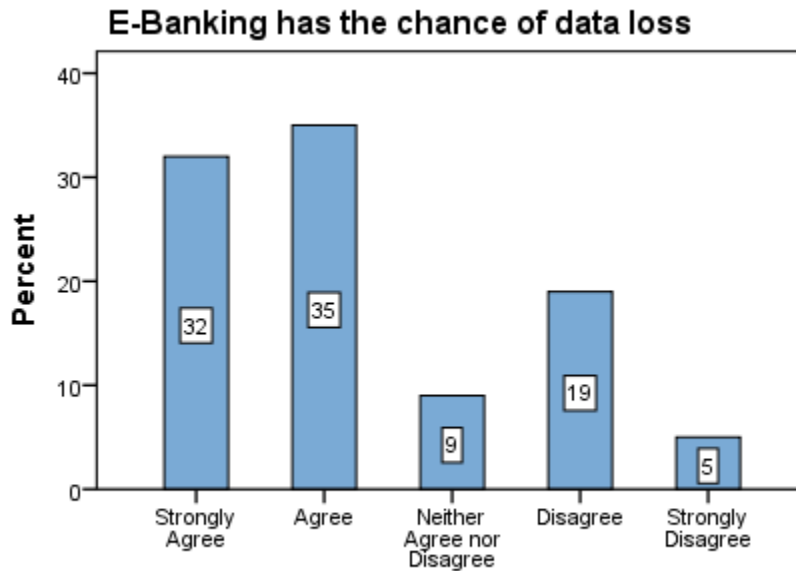


Fig. 4 (Source: Primary Data)

Another disadvantages which affect the perception of consumers towards UPI is that e-banking has a chance of data loss. Majority i.e., 35% of the consumers agree to this, which is supported by 32% of consumers who strongly agree to this. 9% of the consumers neither agree nor disagree to this. However, 19% consumers disagree to this and remaining 5% strongly disagree to this.

#### 4.2 Hypothesis Testing:

To test the hypothesis “Electronic banking services are only available to cities and metros and it’s difficult to penetrate it in rural areas” and “It is practical to penetrate electronic payments in rural sector as IT literacy is developed all over India.”, One-way ANOVA test is applied taking location of respondent as fixed factor and awareness of e-banking services as independent variable where following results were obtained:

#### Table 1

### Descriptives

Are you aware of UPI services?

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Urban	31	1.5806	.50161	.09009	1.3967	1.7646	1.00	2.00
Semi Rural	42	1.1429	.35417	.05465	1.0325	1.2532	1.00	2.00
Rural	27	1.6296	.49210	.09471	1.4350	1.8243	1.00	2.00
Total	100	1.4100	.49431	.04943	1.3119	1.5081	1.00	2.00

**Table 2 Awareness level of respondents**

		Location					
		Urban		Semi Rural		Rural	
		Count	Column Total N%	Count	Column Total N%	Count	Column Total N%
Are you aware of UPI services?	Yes	13	41.9%	36	85.7%	10	37.0%
	No	18	58.1%	6	14.3%	17	63.0%

**Table 3 ANOVA**

Are you aware of UPI services?

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.202	2	2.601	13.289	.000
Within Groups	18.988	97	.196		
Total	24.190	99			

The above ANOVA tables gives the F-worth of 13.289 and the sig. esteem got is 0.00 which is not exactly the alpha worth of 0.05 ( $F=13.289$ ,  $p<0.05$ ), which expresses that there is huge relationship among area and mindfulness level towards UPI. The mean value obtained in case of Urban population is more than rural and semi-rural population. Also 85% of semi-rural population is aware of e-banking services now a days. Hence the hypothesis, “Unified Payment Interface services are only available to cities and metros and it’s difficult to penetrate it in rural areas” is **rejected**.

### 5. Conclusion:

From the above data analysis, findings and hypothesis testing, it is concluded that unified payment interface are the revolution in the Indian Banking services. They possess certain advantages like you can make the payment anytime and anywhere from office, home, market, etc. UPI system has made the payment system very cost effective, it saves lot of time, etc. However, it has certain disadvantages attached to it like. Consumers are still afraid of data and monetary loss while using unified payment interface. The results show that there is significant association between location and awareness level towards unified payment interface. The mean value obtained in case of

Urban population is more than rural and semi-rural population. Also 85% of semi-rural population is aware of e-banking services now a days.

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